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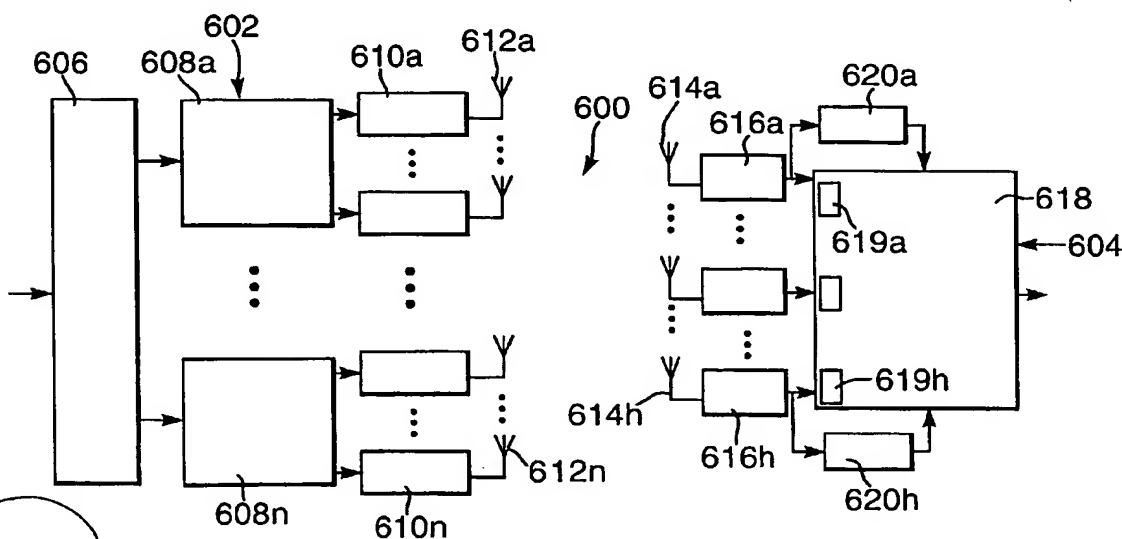
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(54) Title: MAXIMUM LIKELIHOOD BASED INTERFERENCE CANCELLATION FOR SPACE-TIME CODED SIGNALS



(57) Abstract: A signal processing apparatus (604) comprises a plurality of receiving elements (614a-h), weighting means (616a-h), and decoding means (618). Each of the receiving elements (614a-h) has respective weighting means (619a-h) associated therewith at the decoding means (618), and is arranged to receive a plurality of signals transmitted from a plurality of transmitters (612a-n). The weighting means (616a-h) are arranged to apply a complex weighting function to each of a number of the signals received by the receiving elements (614a-h) at a given frequency in order to null the number of signals. The decoding means (618) are arranged to determine a symbol or codeword associated with a non-nulled signal and to incorporate the symbol or codeword in the determination of at least one further symbol or codeword.